

REMARKS

Claims 1 to 20 are presently pending in the application. Entry and consideration of the following remarks is respectfully requested.

I. The 35 U.S.C. § 112, First Paragraph Rejections:

Claims 1 to 20 have been rejected under 35 U.S.C. § 112, first paragraph. Specifically, the Examiner contends that the specification is non-enabling for the terms "standard-K dielectric material" and "high-K dielectric material".

The Examiner's attention is again directed to the fact that the specification defines both of the above terms on page 6, lines 8 to 21. Additionally, the disclosure contained on pages 7 and 8 of the specification gives specific examples of compounds which fall within the definitions provided on page 6 of the specification. The K numbers given in Table 1 are well known and well established among those of ordinary skill in the art.

In light of the disclosure contained in the specification and the knowledge attributable to one of ordinary skill in the art, the terms "standard-K dielectric material" and "high-K dielectric material" are adequately enabled by the specification as filed. Additionally, the Examiner's attention is again drawn to commonly owned United States Patent No. 6,451,647. This patent has claims which issued containing the term "high-K dielectric material"

Accordingly, the terms "standard-K dielectric material" and "high-K dielectric material" are believed to be enabled by the specification as filed and withdrawal of the rejection of claims 1 to 20 is respectfully requested.

With regard to the Examiner's contention that the specification does not enable one of ordinary skill in the art to practice methods which are commensurate with the scope of the claims, the Examiner's attention is directed to the following points.

It is well settled that the field of semiconductor technology is an ever-changing fast-paced technology. As such, the vocabulary associated with semiconductors is always changing and growing. As evidence thereof, the Examiner's attention is directed to attached U.S. Patent No. 6,303,940. As can be seen from the text and claims of U.S. Patent No. 6,303,940, the term high-k dielectric material is used frequently throughout the text and claims. No specific definition of what a high-k material is, is given other than a few examples (i.e., tantalum pentoxide, zirconium dioxide, titanium dioxide and perovskite materials). However, the generic term "high-k dielectric material" is used in issued claim 6 without limitation to the exemplary materials listed in the specification.

Accordingly, it is clear from this U.S. Patent (as well as others -- see attached search results for "high-K dielectric material" as used in issued U.S. Patent claims), that the term "high-k dielectric material" is well known to those of ordinary skill in the art.


Additionally, it is well settled that an inventor can be his or her own lexicographer.

Therefor, it is believed that claims 1 to 20 are fully enabled by the specification as originally filed. As such, withdrawal of the enablement rejection of claims 1 to 20 is respectfully requested.

Should the Examiner believe that a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact Applicant's undersigned attorney at the telephone number listed below.

In the event any fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to our Deposit Account No. 18-0988 under Attorney Docket No. G0518 (AMDSPG0518US).

Respectfully submitted,
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Searching 1976 to present...

Results of Search in 1976 to present db for:

ACLM/"high-k dielectric material": 21 patents.

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Refine Search

ACLM/"high-k dielectric material"

PAT. NO. Title

- 1 [6,562,491](#) [T](#) [Preparation of composite high-K dielectrics](#)
- 2 [6,559,014](#) [T](#) [Preparation of composite high-K / standard-K dielectrics for semiconductor devices](#)
- 3 [6,548,855](#) [T](#) [Non-volatile memory dielectric as charge pump dielectric](#)
- 4 [6,528,858](#) [T](#) [MOSFETs with differing gate dielectrics and method of formation](#)
- 5 [6,524,938](#) [T](#) [Method for gate formation with improved spacer profile control](#)
- 6 [6,518,070](#) [T](#) [Process of forming a semiconductor device and a semiconductor device](#)
- 7 [6,511,925](#) [T](#) [Process for forming high dielectric constant gate dielectric for integrated circuit structure](#)
- 8 [6,511,876](#) [T](#) [High mobility FETS using Al₂O₃ as a gate oxide](#)
- 9 [6,486,533](#) [T](#) [Metallization structures for microelectronic applications and process for forming the structures](#)
- 10 [6,472,236](#) [T](#) [Determination of effective oxide thickness of a plurality of dielectric materials in a MOS stack](#)
- 11 [6,468,851](#) [T](#) [Method of fabricating CMOS device with dual gate electrode](#)
- 12 [6,455,330](#) [T](#) [Methods to create high-k dielectric gate electrodes with backside cleaning](#)
- 13 [6,451,647](#) [T](#) [Integrated plasma etch of gate and gate dielectric and low power plasma post gate etch removal of high-K residual](#)
- 14 [6,451,641](#) [T](#) [Non-reducing process for deposition of polysilicon gate electrode over high-K gate dielectric material](#)
- 15 [6,448,127](#) [T](#) [Process for formation of ultra-thin base oxide in high k/oxide stack gate dielectrics of mosfets](#)
- 16 [6,441,421](#) [T](#) [High dielectric constant materials forming components of DRAM storage cells](#)
- 17 [6,391,708](#) [T](#) [Method of manufacturing DRAM capacitor](#)
- 18 [6,380,104](#) [T](#) [Method for forming composite gate dielectric layer equivalent to silicon oxide gate](#)

dielectric layer

- 19 6,320,238  Gate structure for integrated circuit fabrication
- 20 6,303,940  Charge injection transistor using high-k dielectric barrier layer
- 21 6,271,563  MOS transistor with high-K spacer designed for ultra-large-scale integration
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